Bruhat Bangalore Mahanagara Palike

Executive Engineer Yelahanka Project Division

Name of Work: Modified Estimate For Improvements Roads and Drains at Kogilu Layout Ambedkar Colony Surrounding area in Ward No. 05

Sl No	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB M200-12.1 **Dismantling of existing structures** like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. By Manual Means :B. Cement Concrete Grade M-15 & M-20. (P.No. 139, I.No. 18.20 of CSR 2018-19)								
		Cum							
	Kogilu Layout								
	Masid Main Road		1	63.20	5.38	0.20	68.00		
	Opp to Masid Main Road(Left Side)		1	83.80	5.19	0.20	86.98		
	5th Cross Rd(Left Side)		1	89.60	6.35	0.20	113.79		
	Cross Rd-3		1	24.50	4.40	0.20	21.56		
	5th Cross Rd(Right Side)		1	33.00	3.22	0.20	21.25		
	4th Cross Rd(Right Side)		1	43.40	3.85	0.20	33.42		
	7th Cross Rd(Right Side)		1	41.40	5.71	0.20	47.28		
							392.29	**526.00**	**206343.70**
		Approved Amount		**526.00**					
2	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimmingbottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301								
		Cum							
	Drain Desilt								
	Kogilu Layout								
	1st Cross Rd		2	230.70	0.60	0.60	166.10		
	2nd Cross Rd		2	226.80	0.60	0.60	163.30		
	3rd Cross Rd		2	224.95	0.60	0.60	161.96		
	RCC Drain								
	Kogilu Layout								
	Ittige Factory		2	90.80	1.10	1.00	199.76		
	6th Cross Rd(Right Side)		1	42.80	1.10	1.00	47.08		
	RCC Culvert								
			3	6.60	1.80	1.06	37.78		
			10	5.26	1.50	1.10	86.79		
							862.77	**135.00**	**116474.27**
		Approved Amount		**135.00**					
3	KSRB 2-2 : Earthwork excavation by manual means for foundation of buildings, water supply and sanitary lines and electrical conduits etc, either in pits or in trenches 1.5m and above in width, in soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. including breaking of clods complete as per pecifications.								
		Cum							
	For UGD Pipeline								

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	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Kogilu Layout								
	6th cross Road		1	166.50	1.20	1.60	319.68		
	Bande Road		1	83.10	1.20	1.65	164.54		
	Masjid Main Road		1	16.20	1.20	1.65	32.08		
	5th cross Rd		1	91.40	1.20	1.57	172.20		
							688.49	425.00	292608.93
		Approved Amount		425.00					
4	KSRRB M2100-10 **Providing and laying Plain cement concrete of mix 1:3:6** with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications.(P.No.13, I.No.4.2 of PW, P&IWTD SR 2018-19)								
		Cum							
	RCC Drain								
	Kogilu Layout								
	Ittige Factory		2	90.80	1.10	0.15	29.83		
	6th Cross Rd(Right Side)		1	42.80	1.10	0.15	7.03		
	RCC Culvert								
			3	6.60	1.80	0.15	5.33		
			10	5.26	1.50	0.15	11.80		
							53.98	5780.00	312029.83
		Approved Amount		5780.00					
5	Providing and laying plain/reinforced cement concrete for side drains using **M20 nominal mix concrete with OPC at 300 kgs.** with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (P.No.275, I.No.37.59.2 of PW, P&IWTD SR 2018-19)								
		Cum							
	Drain Raft								
	RCC Drain								
	Kogilu Layout								
	Ittige Factory		2	90.80	0.90	0.15	24.52		
	6th Cross Rd(Right Side)		1	42.80	0.90	0.15	5.78		
	Wall								
	Kogilu Layout								
	Ittige Factory		4	90.80	0.15	0.60	32.69		
	6th Cross Rd(Right Side)		2	42.80	0.15	0.60	7.70		
							70.69	7423.00	524702.18
		Approved Amount		7423.00					
6	Providing and laying in position plain/Reinforced cement cement concrete **M20 for sub-structure/Superstructure works, with cement @ 320 kgs,** 20 mm & down size graded granite metal coarse aggregate @ 0.69 cum and fine aggregates @ 0.46 cum machine mixed with super plasticisers @ 3 lts confirming to IS 9103-2008,concrete laid in layers, well compacted and providing weep holes wherever necessary. with necessary scaffolding, form work etc., including cost of labour, HOM curing etc., complete (P.No.257, I.No.34.17 of PW, P&IWTD SR 2018-19)								
		Cum							

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	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	RCC Culvert Raft								
			3	6.60	1.50	0.20	5.94		
	RCC Culvert Wall		10	5.23	1.20	0.20	12.78		
			6	6.60	0.23	0.60	5.46		
			20	5.26	0.23	0.60	14.52		
							38.70	**5541.00**	**214438.56**
		Approved Amount		**5541.00**					
7	KSRB 4-6.1 : Providing and **removing centering**, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.1 (P.No.16, I.No.4.28 of PW,P&IWTD SR 2018-19)								
		Sqm							
	Culvert Raft								
			26	5.57		0.20	28.96		
							28.96	**287.00**	**8,311.18**
		Approved Amount		**287.00**					
8	KSRB 4-6.1 : Providing and **removing centering**, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.1 (P.No.16, I.No.4.31 of PW,P&IWTD SR 2018-19)								
		Sqm							
	Culvert Wall								
			52	5.57		0.60	173.76		
							173.76	**398.00**	**69,155.00**
		Approved Amount		**398.00**					
9	KSRB 4.9.2 : Providing **T.M.T steel reinforcement** for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications (P.No.18, I.No.4.46.2 of PW, P&IWTD SR 2018-19).								
		Tn							
	For Drain 65kg/cum			70.69	0.065		4.59		
	For Culvert 90kg/cum			38.70	0.085		3.27		
							7.86	**78978.00**	**620641.24**
		Approved Amount		**78978.00**					
10	Providing and fixing RCC Precast cover slab of **100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge.(Data Rate)								
		Sqm							
	Kogilu Layout								
	3rd Cross Rd		2	214.65	0.90		386.37		
	Deduct		-36	0.60	0.90		-19.44		
	RCC Drain								
	Kogilu Layout								
	Ittige Factory		2	90.80	0.90		163.44		
	6th Cross Rd(Right Side)		1	42.80	0.90		38.52		
							568.89		
			Upto 125%				**213.75**	**2454.00**	**524542.50**
			Above 125%				**355.14**	**2454.00**	**871513.56**
		Approved Amount		**2454.00**					

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	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge.(Data Rate)								
	RCC Culvert Raft	Sqm							
			3	6.60	1.50		29.70		
			10	5.26	1.20		63.12		
							92.82	**5688.00**	**527960.16**
		Approved Amount		**5688.00**					
12	KSRB12-2 : Providing and laying in position plain cement concrete M7.5 using 40mm and down size graded granite metal, machine mixed concrete laid in layers not exceeding 15 cms thick, well compacted, for internal diameter stoneware pipes including cost of materials, labour charges, HOM curing complete as per specifications Specification								
		M							
	For UGD Pipeline								
	Kogilu Layout								
	9th cross Road								
	Bande Road		1	166.50			166.50		
	Masjid Main Road		1	83.10			83.10		
	5th cross Rd		1	16.20			16.20		
			1	91.40			91.40		
							357.20	**647.00**	**231108.40**
		Approved Amount		**647.00**					
13	KSRB 12-1 : Providing and laying in position to required level or slope of internal diameter salt glazed stoneware pipes grade A and jointing with stiff mixture of cement mortar in proportion of 1:1, testing of pipes and joints,including cost of materials, labour charges complete as per								
		M							
	For UGD Pipeline								
	Kogilu Layout								
	9th cross Road								
	Bande Road		1	166.50			166.50		
	Masjid Main Road		1	83.10			83.10		
	5th cross Rd		1	16.20			16.20		
			1	91.40			91.40		
							357.20	**702.00**	**250754.40**
		Approved Amount		**702.00**					
14	KSRB 12-5 : Constructing brick masonry circular type manhole 1.22 m internal dia at bottom and 0.56m dia at top, with table moulded and non modular bricks of class designation 50 in cement mortar 1:4, inside cement plaster 12mm thick with ement mortar 1:3, finished with a floating coat of neat cement, foundation concrete M 10 using 40mm and down size granite metal and making necessary channel in cement concrete M 15 with 20mm and down size granite metal finished with								
		No's							
	For UGD Pipeline								
	Kogilu Layout								
	9th cross Road		3				3.00		
	Bande Road		2				2.00		
	Masjid Main Road		1				1.00		
	5th cross Rd		1				1.00		
							7.00	**32628.00**	**228396.00**
		Approved Amount		**32628.00**					

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	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications.								
		Cum							
	For UGD Pipeline								
	Kogilu Layout								
	9th cross Road		1	166.50	1.20	1.20	239.76		
	Bande Road		1	83.10	1.20	1.20	119.66		
	Masjid Main Road		1	16.20	1.20	1.20	23.33		
	5th cross Rd		1	91.40	1.20	1.20	131.62		
							514.37	111.00	57,094.85
		Approved Amount		111.00					
16	KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300-2 complete as per specifications, including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of modified proctors density. MORTH Specification								
		Cum							
							0.00	362.00	0.00
		Approved Amount		362.00					
17	KSRB 2.6 : Providing and filling sand in foundation to required depth for sub soil treatment including watering ramming with all lead and lift complete as per specifications. specification.								
		Cum							
							0.00	2293.00	0.00
		Approved Amount		2293.00					
18	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method by rotavator at OMC,spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per								
		Cum							
							0.00	1948.00	0.00
		Approved Amount		1948.00					
19	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired								
		Cum							
							0.00	2101.00	0.00
		Approved Amount		2101.00					
20	KSRRB M600-1.Providing and **Constructing dry lean cement concrete mix CC 1:5:10** base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. Clause 601of MORTH V Revision and IS 456 Table-5 ((P.No.174, I.No.22.1.1 of PW,P&IWTD SR 2018-19)								
		Cum							
	Kogilu Layout								

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	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Masid Main Road								
	Cross Rd(2nd Street To 3rd Street)		1	63.50	5.35	0.15	50.96		
	Opp to Masid Main Road(Left Side)		1	83.80	5.20	0.15	65.36		
	5th Cross Rd(Left Side)		1	90.00	6.30	0.15	85.05		
	Cross Rd-3		1	24.50	4.40	0.15	16.17		
	Kogilu Layout								
	5th Cross Rd(Right Side)		1	33.50	3.15	0.15	15.83		
	4th Cross Rd(Right Side)		1	43.00	3.90	0.15	25.16		
	7th Cross Rd(Right Side)		1	41.40	5.70	0.15	35.40		
							293.92	**3990.00**	**1172754.77**
		Approved Amount		**3990.00**					
21	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete **M30 with OPC at 360 kg**/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum. over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications.((P.No.176, I.No.22.6.1 of PW,P&IWTD SR 2018-19)								
		Cum							
	Kogilu Layout								
	Masid Main Road								
	Cross Rd(2nd Street To 3rd Street)		1	63.50	5.35	0.15	50.96		
	Opp to Masid Main Road(Left Side)		1	83.80	5.20	0.15	65.36		
	5th Cross Rd(Left Side)		1	90.00	6.30	0.15	85.05		
	Cross Rd-3		1	24.50	4.40	0.15	16.17		
	Kogilu Layout								
	5th Cross Rd(Right Side)		1	33.50	3.15	0.15	15.83		
	4th Cross Rd(Right Side)		1	43.00	3.90	0.15	25.16		
	7th Cross Rd(Right Side)		1	41.40	5.70	0.15	35.40		
							293.92	**5471.00**	**1608055.47**
		Approved Amount		**5471.00**					
22	**Vaccum de-watering** with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift. (P.No 176, I.No.22.7 of PW,P&IWTD S.R 2018-19)								
		Sqm							
	Kogilu Layout								
	Masid Main Road								

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	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Cross Rd(2nd Street To 3rd Street)		1	63.50	5.35		339.73		
	Opp to Masid Main Road(Left Side)		1	83.80	5.20		435.76		
	5th Cross Rd(Left Side)		1	90.00	6.30		567.00		
	Cross Rd-3		1	24.50	4.40		107.80		
	Kogilu Layout								
	5th Cross Rd(Right Side)		1	33.50	3.15		105.53		
	4th Cross Rd(Right Side)		1	43.00	3.90		167.70		
	7th Cross Rd(Right Side)		1	41.40	5.70		235.98		
							1959.49	**74.50**	**145982.01**
		Approved Amount		**74.50**					
		EIRL							
E1	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications.								
	Basic rate	5422.00							
	Area Weightage 6%	325.32							
	Sub Total	5747.32							
	TP Above 4.97%	285.64							
	Sub Total	**6032.96**							
		Cum							
	For Flagging Course P.C.C								
	Kogilu Layout								
	1st Cross Rd		4	230.70	0.20	0.15	27.684		
	2nd Cross Rd		4	226.80	0.20	0.15	27.216		
	3rd Cross Rd		4	224.95	0.20	0.15	26.994		
	For Flagging Course Coping								
	1st Cross Rd		4	230.70	0.15	0.10	13.842		
	2nd Cross Rd		4	226.80	0.15	0.10	13.608		
	3rd Cross Rd		4	224.95	0.15	0.10	13.497		
							122.84	**6032.96**	**741095.06**
		Approved Amount		**6032.96**					
E2	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications.								
	Basic rate	924.00							
	Area Weightage 6%	55.44							
	Sub Total	979.44							
	TP Above 4.97%	48.68							
	Sub Total	**1028.12**							
		Sqm							
	Kogilu Layout								
	1st Cross Rd		4	230.70		0.20	184.56		
	2nd Cross Rd		4	226.80		0.20	181.44		
	3rd Cross Rd		4	224.95		0.20	179.96		

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Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
						545.96	1028.12	561311.40
	Approved Amount		1028.12					
							Total Construction Cost	9285273.45
							Miscellaneous & Rounding Off	971.91
							Total	9286245.36

Assistant Engineer

Asst. Executive Engineer

Executive Engineer

Technical Sanction
Accorded For RS 9286245.36
Head of A/C P.1828.6
CER NO :.06..... Dt. 26.04.2024

[TA] CE (YNK)

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